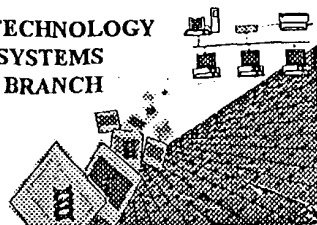


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/621911
Source: IFWO
Date Processed by STIC: 8/20/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box-1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/621,911

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 J Invalid Line Length The rules require that a line **not exceed** 72 characters in length. This includes white spaces.

- 3 J Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.

- 4 Non-ASCII The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. Please **ensure your subsequent submission is saved in ASCII text.**

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for **each** skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) ~~SEQUENCE CHARACTERISTICS:~~ (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for **each** skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is **MANDATORY** if n's or Xaa's are present.
 In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence

- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is **MANDATORY** if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 Misuse of n/Xaa "**n**" can **only** represent a single nucleotide; "**Xaa**" can **only** represent a single amino acid



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/621,911

DATE: 08/20/2004

TIME: 11:03:31

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Output Set: N:\CRF4\08202004\J621911.raw

3 <110> APPLICANT: SAITOU, Mitinori
 4 SURANI, Azim
 6 <120> TITLE OF INVENTION: Genes
 8 <130> FILE REFERENCE: 674558-2002
 10 <140> CURRENT APPLICATION NUMBER: 10/621,911
 11 <141> CURRENT FILING DATE: 2003-07-17
 13 <150> PRIOR APPLICATION NUMBER: PCT/GB02/00215
 14 <151> PRIOR FILING DATE: 2002-01-18
 16 <150> PRIOR APPLICATION NUMBER: GB 0101300.2
 17 <151> PRIOR FILING DATE: 2001-01-18
 19 <160> NUMBER OF SEQ ID NOS: 26
 21 <170> SOFTWARE: SeqWin99, version 1.02

*IMPORTANT! see item 4
on Error
summary
sheet*
**Does Not Comply
Corrected Diskette Needed**

ERRORED SEQUENCES

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 96 <211> LENGTH: 150
 97 <212> TYPE: PRT
 98 <213> ORGANISM: Mus musculus
 100 <400> SEQUENCE: 4
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 108 35 40 45
 110 Gly Val Lys Arg Ser Ala Arg Arg Arg Ser Leu Arg Asn Arg Ile Ala
 111 50 55 60
 113 Ala Val Pro Val Glu Asn Lys Ser Glu Lys Ile Arg Arg Glu Val Gln
 114 65 70 75 80
 116 Ser Ala Phe Pro Lys Arg Arg Val Arg Thr Leu Leu Ser Val Leu Lys
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 123 115 120 125
 125 Cys Leu Cys Thr Phe Cys His Tyr Gln Arg Trp Asp Pro Ser Glu Asn
 126 130 135 140
 128 Ala Lys Ile Gly Lys Asn
 E--> 129 145 150 150 misaligned amino acid numbers - see item 3 on Error
 253 <210> SEQ ID NO: 7
 254 <211> LENGTH: 7656

pp 1, 4, 5, 6

summary sheet

RAW SEQUENCE LISTING

DATE: 08/20/2004

PATENT APPLICATION: US/10/621,911

TIME: 11:03:31

Input Set : A:\PTO.LM.txt

Output Set: N:\CRF4\08202004\J621911.raw

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256 <213> ORGANISM: Rattus sp

258 <400> SEQUENCE: 7

P.4

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RAW SEQUENCE LISTING

DATE: 08/20/2004

PATENT APPLICATION: US/10/621,911

TIME: 11:03:31

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RAW SEQUENCE LISTING

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See
err
exploration
on
p.6

P.S

RAW SEQUENCE LISTING

DATE: 08/20/2004

PATENT APPLICATION: US/10/621,911

TIME: 11:03:31

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410 ccagttgtgg acccagaaac tcctcagacg aaagatgaaa aggacgcac cgtgattca 1020
411 gaagtcgtaa gccagaaaca ctagtaaagg tcatgaaaac gctagccctg aaccccagtg 1080
412 ccaagcggtc agcacatcgt cgcagcctcc gtctccggat tcagagaaga cctgtggaga 1140
413 acagaagtga aagaatttcg agggaagttc aaagcgcttt acccaagaga agggtcgca 1200
414 cgttgttgtc ggtgctgaga gatcctatag caaggatgag aagacttggt gggattgagc 1260
415 agagacaaca caggctggaa ggaaatgagt agaaacggaa gagtgtgcca ttcagactca 1320
416 ctgtgctttc tgccattatc agagacggga tccgtctgag aacgctaaaa tcgggaagca 1380
417 ttaggacagc ttagattgta cactgtcctt gtgttaatga tgccatgcag cagacctgaa 1440
418 agctggcttt tgctttttaa gattaacctt ttctggtgc tggggactct tctaacttgt 1500
419 taacctttaa attatatagg gtgcgtgatg tttggattca tgtgaatgac ttaaatttac 1560
420 ccaaagaatt gagaaggagt caaagcattc tgtgaatttt tgaagcctca agcccggggc 1620
421 cgagaaacaa tgtaataaga atttggaata gtttggttta gaaggtaatt gggatagatc 1680
422 tctgaatttt ctagtgtgca aaaacaaaaa caaaaaaaaa gactaaaaaa acaactgggg 1740
423 aggagtaagg ttatttcagc ctccatgtct tgatcccagt ccatcatgaa aggaagtcag 1800
424 gacaggaact caagtcagga ccgtggaagt aggtagcacc tgaagcagag acttctggga 1860
425 tgaaagecgt gcttctgac tcgctcccca caaattgggc cctgagcctt cttgtccacc 1920
426 ctcggaacccc ttgcctaggg ttggcaccac ccacaatggg ctgagccttc ccatgtcaat 1980
427 cactaattaa gaaaatgctg tacagcgttg cctacaaacc agtcttaagg aggcgttttc 2040
428 tccattgtgg ctctctcttc tctgataact ctagcttggt tcaaattgac aaccaaccag 2100
E--> 429 ccagcacaca aacantttaaa aagatagaaa taatgttagt gnnntcncatc gagcaagagt 2160
430 c 2161

```

see p. 6

VARIABLE LOCATION SUMMARY

DATE: 08/20/2004

PATENT APPLICATION: US/10/621,911

TIME: 11:03:32

Input Set : A:\PTO.LM.txt

Output Set: N:\CRF4\08202004\J621911.raw

error explanation

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:7; N Pos. 7471,7554,7608

Seq#:8; N Pos. 2115,2142,2143,2146

VERIFICATION SUMMARY

DATE: 08/20/2004

PATENT APPLICATION: US/10/621,911

TIME: 11:03:32

Input Set : A:\PTO.LM.txt

Output Set: N:\CRF4\08202004\J621911.raw

L:129 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
L:383 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:7
L:384 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:7
L:385 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:7
L:429 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:8